

Tammy Erlene Parece  
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### **Education**

Ph.D., Geospatial and Environmental Analysis, 2016, Virginia Polytechnic Institute and State University. Dissertation Title: *Geospatial Analysis to site Urban Agriculture.*

M.S., Geography, 2010, Virginia Polytechnic Institute and State University. Thesis Title: *Managing water and electricity consumption in university residence halls: a study on promoting voluntary resource conservation by college students.*

Graduate Certificate - Geographic Information Systems, 2008, Virginia Commonwealth University.

B.S., Interdisciplinary Studies, 2006, Virginia Commonwealth University.

John Tyler Community College, Chesterfield, Virginia. 1994 – 2000.

Central Virginia Community College, Lynchburg, Virginia. 1983 – 1987.

College of DuPage, Glen Ellyn, Illinois. 1978 – 1979.

Purdue University, West Lafayette, Indiana. (Tammy Erlene Witthoft). 1977.

### **Academic Work History**

#### ***The Ohio State University***

August 2022 – present, Senior Lecturer, Department of Geography

#### ***Colorado Mesa University, Grand Junction Colorado,***

August 2019 – 2022, Assistant Professor of Geography

August 2016 – July 2019, Instructor of Geography, Department of Social and Behavioral Sciences

***Virginia SNAP Ed Program.*** Summer 2016. GIS Analyst.

#### ***Virginia Tech, Blacksburg, Virginia***

##### *Instructor*

Introduction to Remote Sensing. Summer 2014.

Introduction to Human Geography. Summer 2011 & 2012.

##### *Assistantships - Teaching*

College of Natural Resources and Environment's First Year Experience Course. 2014 – 2015.

Introduction to Remote Sensing. Fall 2012 & 2013. Department of Geography.

Analysis of Spatial Data. Spring 2012 & 2013. Department of Geography.

GIS in Natural Resource Management. Fall 2011. Department of Forest Resources and Environmental Conservation.

Information Technologies for Natural Resource Management. Spring 2011. Department of Forest Resources and Environmental Conservation.

Introduction to Human Geography. Spring 2009 & 2010. Department of Geography.

Introduction to Geographic Information Systems. Fall 2008 & 2009. Department of Geography.

*Assistantship – Research*

Integrating soil and vegetation performance engineered environments in urban watersheds. Summer 2011. Department of Forest Resources and Environmental Conservation.

***AmericaView*** (<http://www.americaview.org/>)

Instructor, WS #16: Remote Sensing Using ArcGIS 10.x. April 14, 2016. American Society for Photogrammetry and Remote Sensing 2016 Annual Conference, Fort Worth, Texas.

***VirginiaView*** (<http://virginiaview.cnre.vt.edu/>), Blacksburg, Virginia

Instructor, Getting to Know Lidar in ArcGIS. December 10, 2015, Virginia Tech, Blacksburg, Virginia. Workshop for Professionals.

Instructor, Introduction to Lidar in an ArcGIS 10.2 Environment. October 19, 2015. 26<sup>th</sup> Annual Virginia GIS Conference, Charlottesville Virginia.

<http://www.vamlis.org/VirginiaGISConference2015.aspx>

Instructor, Webinar: Subsetting and Enhancing Landsat Imagery using ArcGIS Desktop. October 15, 2015. <https://learn.extension.org/events/1875#.VcjzpPIFFcJ>

Instructor, Webinar: Displaying Landsat Imagery using Band Combinations in ArcGIS Desktop. September 9, 2015. <https://learn.extension.org/events/1873#.ViAiXCuX9cJ>

Instructional Developer, *Finding and using lidar data in ArcGIS*. Summer 2015

Instructor, Webinar: Selecting, Downloading, Displaying, and Understanding Landsat Imagery. June 3, 2015. <https://learn.extension.org/events/1871#.VXA0zEbyRcJ>

Co-Instructor, Remote Sensing Using ArcGIS 10.X. June 25 - 26, 2015 & June 26 - 27, 2014. Location - Reynolds Community College Campus, Richmond, Virginia.

Instructional Developer, *Using ESRI's On-Line Landsat Map Databases*. Summer 2014.

Instructional Developer, Created image analysis tutorials for Landsat Imagery using ArcGIS. Summer 2013.

Geospatial Technologies: Introductory Workshops for Educators. Co-instructor and developed curriculum and program for a series of workshops on GIS, GPS and remote sensing to improve Virginia Community College instruction in K-12 STEM education. Two-day workshops conducted in 3 different community colleges in Virginia. July 2012.

***Conservation Management Institute*** (<http://cmi.vt.edu/>), Blacksburg, Virginia

Instructor, Introduction to GIS and Remote Sensing. October 29 – 31, 2013 and March 11 – 13, 2014. Virginia Department of Environmental Quality, Richmond, Virginia.

***Virginia Commonwealth University, Richmond, Virginia***

*Undergraduate Assistantship -Teaching*

World Regions Geography Service-Learning Course. 2005 – 2006

*Graduate Assistantship - Research*

Research on service learning and nature deficit disorder, preparing and coordinating activities for an environmental festival. 2007 – 2008.

**Publications**

***Journal Articles***

Younos, T., Lee, J., Parece, T. 2021. Rainwater Harvesting: Resilient Water Resource Management Strategy in Urban Settings. *Water Resources Impact* 23(2): 45-47.

- Perry, N., Casey, T., Parece, T., Castanada, C. 2021. The impact of natural amenities on home values in Western Colorado. *International Journal of Applied Geospatial Research* 21(2).
- Younos, T., Lee, J., Parece, T.E. 2018. 21<sup>st</sup> Century urban water management: The imperative for holistic and cross-disciplinary approach. *Journal of Environmental Studies and Sciences*. doi: 10.1007/s13412-018-0524-3
- Parece, T.E. and Campbell, J.B. 2018. Intra-Urban Microclimate Effects on Phenology. *Urban Science* 2(1): 26. doi: 10.3390/urbansci2010026
- Parece, T.E., and Campbell, J.B. 2017. Assessing Urban Community Gardens' Impact on Net Primary Production using NDVI. *Urban Agriculture & Regional Food Systems* 2:1. doi:10.2134/urbanag2016.07.0004
- Parece, T.E. and Campbell, J.B. 2017. Geospatial evaluation for urban agriculture land inventory: Roanoke, Virginia. *International Journal of Applied Geospatial Research* 8(1).
- Parece, T.E., Campbell, J. B., and Serrano, E.L. 2016. Strategically siting urban agriculture: A socio-economic analysis of Roanoke, Virginia. *The Professional Geographer* 69(1):45-58. <http://dx.doi.org/10.1080/00330124.2016.1157496>
- Parece, T.E., Lie, J., Campbell, J.B., and Carroll, D. 2016. Assessing urban landscape variables contribution to microclimates. *Advances in Meteorology*. DOI:10.1155/2016/8736263.
- Parece, T.E. and Campbell, J.B. 2015. Identifying Urban Watershed Boundaries and Area, Fairfax County, Virginia. *Photogrammetric Engineering & Remote Sensing* 81(5):365-372.
- Parece, T.E., McGee, J, Campbell, J.B., and Wynne, R.H. 2015. Virginia's Efforts to Expand Learning Geospatial Technologies across the Educational Spectrum. *Photogrammetric Engineering & Remote Sensing* 81(3):173-181.
- Parece, T.E. and Campbell, J.B. 2013. Comparing Urban Impervious Surface Identification Using Landsat and High Resolution Aerial Photography. *Remote Sensing* 5(10): 4942-4960.
- Parece, T., Younos, T., Grossman, L.S., and Geller, E.S. 2013. A study of environmentally relevant behavior in university residence halls. *International Journal of Sustainability in Higher Education* 14 (4): 466-481.
- Parece, T.E. and Aspaas, H.R. 2007. Reedy Creek Cleanup: The Evolution of a University Geography Service Learning Project. *Journal of Geography* 106 (4): 153-161.

### **Book Chapters**

- Baldo, C. and Parece, T.E. in draft. Anticipating a Post-Disaster Supply Chain Disruption. In *Spatial Literacy in Public Health*. L. Cantwell and T. Parece, editors. Association of College & Research Libraries.
- Parece, T.E. 2022. The Impact of Location on Decentralized Water Use in Urban Agriculture. In *Resilient Water Management Strategies in Urban Settings: Innovations in Decentralized Water Infrastructure Systems: Global Case Studies, Prospects, and Challenges*, T. Younos, J. Lee and T. Parece, editors. Springer Water.
- Lee, J., Younos, T. and Parece, T. 2022. Decentralized Green Water- Infrastructure Systems: Resilient and Sustainable Management Strategies for Building Water Systems. In *Resilient Water Management Strategies in Urban Settings: Innovations in Decentralized Water Infrastructure Systems: Global Case Studies, Prospects, and Challenges*, T. Younos, J. Lee and T. Parece, editors. Springer Water.
- Parece, T.E. and Seebach, J.D. 2020. Colorado's Western Slope: A View from the Other Side of the Divide. In *Denver and the Rocky Mountain West*, M. Keables ed. American Association of Geographers, Washington D.C. [http://www.aag.org/publications/special/the\\_rocky\\_mountain\\_west](http://www.aag.org/publications/special/the_rocky_mountain_west)
- Parece, T.E. and Campbell, J.B. 2019. Geospatial evaluation for urban agriculture land inventory: Roanoke, Virginia. In *Urban Agriculture and Food Systems: Breakthroughs in*

- Research and Practice*, Mehdi Khosrow-Pour, Ed. IGI Global. Pages 533-556. DOI: 10.4018/978-1-5225-8063-8.ch027
- Parece, T.E. and Campbell, J.B. 2017. A survey of urban community gardeners in the United States of America. In *Global Urban Agriculture: Convergence of Theory and Practice between North and South*, Antoinette WinklerPrins, Ed. CABI. Chapter 4. ISBN 9781780647326.
- Parece, T.E. Lumpkin, M., and Campbell, J.B. 2016. Integrating harvested rainwater in urban agriculture. In *Sustainable Water Management in Urban Environments*. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 47; Springer.
- Parece, T.E., McGee, J., and Campbell, J.B. 2016. On-line geospatial resources to support STEM instruction. Chapter 4 in *STEM and GIS in Higher Education*. (David J. Cowen, Ed.). ESRI Press (ebook). 303 pages. <https://esri.app.box.com/v/STEMGIS>
- Parece, T.E. and Campbell, J.B. 2015. Land use/land cover monitoring and geospatial technologies: An overview. In *Advances in Watershed Science and Assessment*. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 33; Springer. DOI 10.1007/978-3-319-14212-8\_1
- Parece, T., Grossman, L.S., and Geller, E.S. 2013. Reducing Carbon Footprint of Water Consumption: A Case Study of Water Conservation at a University Campus. In *Climate Change and Water Resources*, Volume Editors: T. Younos and C. Grady. Book Series: The Handbook of Environmental Chemistry, Volume 25. Springer.
- Younos, T. and Parece, T.E. 2012. Water Use and Conservation. In: Stoltman, J., ed. *21st Century Geography: A Reference Handbook*. 40: 446-456. Los Angeles: Sage.

### **Books**

- Parece, T.E., Campbell, J.B. and McGee, J. 2020. Lidar in ArcGIS Pro. Kindle Direct Publishing. <https://www.amazon.com/dp/B086C7T5GM>.
- Parece, T.E., Campbell, J.B. and McGee, J. 2019. *Remote Sensing using ArcGIS® Pro*. Kindle Direct Publishing. <https://www.amazon.com/Remote-Sensing-ArcGIS-Tammy-Parece-ebook/dp/B07NX3K9P7>
- Parece, T.E. and Campbell J.B. 2018. Exploring our Planet with Open-Source Software. AmericaView. <https://www.virginiaview.cnre.vt.edu/tutorial/Exploring%20our%20Planet%20with%20Open%20Source%20Software.pdf>
- Parece, T.E., Campbell, J.B. and McGee, J. 2017. *Remote Sensing Analysis in an ArcMap Environment, 2<sup>nd</sup> edition*. Kindle Direct Publishing. <https://www.amazon.com/Remote-Sensing-Analysis-ArcMap-Environment/dp/1549796119>. 255 p.
- Parece, T.E., Campbell, J.B. and McGee, J. 2016. *Working with Lidar using ArcGIS Desktop*. Kindle Direct Publishing. <https://www.amazon.com/dp/B01K57CNE8#nav-subnav>.

### **Technical Reports**

- Perry, N., Parece, T.E., Castaneda, C., Casey, T. 2017. The impact of natural amenities on home values in the greater Grand Junction area. <https://www.coloradomesa.edu/natural-resource-center/documents/Mesa%20County%20Hedonic%20House%20Price%20Study%20Report>.
- Parece, T., DiBetitto, S., Sprague, T., and Younos, T. 2010. The Stroubles Creek Watershed: History of development and chronicles of Research. VWRRC Special Report No. SR48-2010. Virginia Tech, Blacksburg, VA. Available at: [http://www.vwrrec.vt.edu/special\\_reports.html#2009](http://www.vwrrec.vt.edu/special_reports.html#2009)
- DiBetitto, S. Younos, T., and Parece, T. 2009. A longitudinal analysis of the impact of urbanization on Stroubles Creek: Historical Perspective. In *Virginia Water Resources*

*Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering. VWRRC Special Report No. SR47-2009.* T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Pp: 75-84. Available at [http://www.vwrcc.vt.edu/nsf\\_reu.html](http://www.vwrcc.vt.edu/nsf_reu.html)

Sprague, T., Parece, T., and Younos, T. 2009. Analyzing the Upper Stroubles Creek Watershed using geospatial technologies. In *Virginia Water Resources Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering. VWRRC Special Report No. SR47-2009.* T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Pp: 85 - 94. Available at [http://www.vwrcc.vt.edu/nsf\\_reu.html](http://www.vwrcc.vt.edu/nsf_reu.html)

### **Teacher Resources**

McNally, RJ, Parece, T., and Campbell, J. 2015. An Educator's Guide to Weather Underground®: A Step-by-Step User's Manual for K-12 Educators. Weblink forthcoming.

McNally, RJ, Parece, T., and Campbell, J. 2015. WeatherLink®: A Step-by-Step Software Users' Guide. Prepared for Roanoke City Public Schools, Roanoke, Virginia, for use with fixed weather stations installed in 2013.

### **Edited Works**

*Green Water-Infrastructure Systems: Advances in Research and Technology.* Anticipated 2023. Special Issue of Water. MDPI. T. Younos, T. Deksissa and T. Parece, Guest editors.

*Alternative Water Sources for Producing Potable Water.* Book chapters due spring 2023. T. Younos, J. Lee & T. Parece, editors. Book Series: The Handbook of Environmental Chemistry. Springer.

*Spatial Literacy in Public Health.* Book chapters due fall 2022. L. Cantwell and T. Parece, Editors. Association of College & Research Libraries: American Library Association.

*Resilient Water Management Strategies in Urban Settings: Innovations in Decentralized Water Infrastructure Systems: Global Case Studies, Prospects, and Challenges,* T. Younos, J. Lee and T. Parece, editors. Springer Water. Pending Publication 2022.

*Socio-Hydrology: The New Paradigm in Resilient Water Management.* 2021. Edited by T. Younos, T. Parece, J. Lee, J. Giovannettone and A. Armel. MDPI.

*Hydrology, Special Issue – Socio-Hydrology.* 2020. Editors: Junesok Lee, Tamim Younos, Tammy Parece, Alaina Armel and Jason Giovannettone.

*Remote Sensing of Urban Agriculture and Land Cover - a special edition of Remote Sensing.* J.B. Campbell and T.E. Parece, special editors. 2018. [http://www.mdpi.com/journal/remotesensing/special\\_issues/urban\\_agr](http://www.mdpi.com/journal/remotesensing/special_issues/urban_agr)

*Hydrology. Special Edition – The Intersection of Society and Watershed Science.* T. Younos, T.E. Parece, and A.J. Armel, Special Editors. 2016 [http://www.mdpi.com/journal/hydrology/special\\_issues/watershed\\_science](http://www.mdpi.com/journal/hydrology/special_issues/watershed_science).

*Sustainable Water Management in Urban Environments.* 2016. T. Younos and T. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 47; Springer. <http://www.springer.com/gp/book/9783319293356>

*Advances in Watershed Science and Assessment.* 2015. T. Younos and T.E. Parece, eds. Book Series: The Handbook of Environmental Chemistry, Volume 33; Springer.

*Virginia Water Resources Research Center, 2009 NSF REU Proceedings of Research: Research Opportunities in Interdisciplinary Watershed Sciences and Engineering. VWRRC Special Report No. SR47-2009.* T. Parece, T. Younos & V. Lohani, eds. Virginia Tech: Blacksburg, VA. Available at [http://www.vwrcc.vt.edu/nsf\\_reu.html](http://www.vwrcc.vt.edu/nsf_reu.html)

## **Competitive Funding**

### **As Faculty**

American Association of Geographers COVID Internship Grant. 2021. \$3,000 for student intern for mapping project at CMU's Forensic Investigative Research Station.

Colorado Mesa University Faculty Development Fund. 2019. \$543.

Daniels Fund Ethics Initiative. Colorado Mesa University Department of Business. Developing ethics curriculum within courses. Co-PIs: Dr. John Seebach and Dr. Melissa Connor. 2018. \$6,000.

### **As a Student**

#### ***Fellowships***

- American Society for Photogrammetry and Remote Sensing. 2016 Robert N. Colwell Memorial Fellowship. \$6,500.
- Virginia Space Grant Consortium 2015 – 2016 Graduate Research Fellowship. \$6,000.
- U.S. Environmental Protection Agency STAR Fellowship. 2014 – 2016. \$84,000.
- Virginia Space Grant Consortium 2014 – 2015 Graduate Research Fellowship. \$5,000.

#### ***Scholarships***

American Society for Photogrammetry and Remote Sensing. Paul R. Wolf Memorial Scholarship, 2014. \$3,500.

U.S. Geospatial Intelligence Foundation Doctoral Scholarship. August 2013. \$5,000.

Cabell Brand Center First Freedom Scholarship, April 2013. \$1,000

Virginia Chapter of the American Water Works Association Scholarship, August 2012. \$1,000.00

Virginia Chapter of the Water Environment Federation. Sonny Roden Memorial Scholarship. May 2012. \$1,500.00

Virginia Lakes and Watersheds Scholarship. September 2009. \$2,500.00

Virginia Water Environment Federation. Sonny Roden Memorial Scholarship. September 2009. \$1,500.00

#### ***Grants***

Gamma Theta Upsilon AAG Travel Grant. April 2015. \$200.00

Sigma Xi Graduate Award for Doctoral Degree Students. May 2013. \$1,000

Sidman Poole Endowment Fund. January 2013. \$1500.00 grant to use for dissertation research - purchasing weather stations for Roanoke City Public Schools.

Graduate Research Development Project, Virginia Tech. December 2012. \$500.00 for dissertation research project – purchasing weather stations for Roanoke City Public Schools.

Precourt Energy Efficiency Center – Precourt Center Fellow for the 2009 Behavior, Energy and Climate Change Conference. November 2009. \$330.00

The Honor Society of Phi Kappa Phi Love of Learning Award. September 2009. \$500.00

Sidman P. Poole Endowment Fund. April 2009. \$800.00

Graduate Research Development Project, Virginia Tech - \$400.00 for graduate research project - Managing Water and Electricity Consumption in University Residence Halls: A study on promoting voluntary resource conservation by college students. Spring 2009.

Co-Principal Investigator, Virginia Commonwealth University Counsel for Community Engagement. \$10,280. Environmental Festivals: Opportunities for Engaging our Citizens in Watershed Sustainability. July 1, 2007 – June 30, 2008.

Co-Principal Investigator, Virginia Environmental Endowment. \$3,000. Environmental Festivals: Opportunities for Engaging our Citizens in Watershed Sustainability. September 1, 2007 – May 1, 2008.

Co-Principal Investigator, Virginia Naturally Partner Grant. \$2,000. Environmental Festivals: Opportunities for Engaging our Citizens in Watershed Sustainability. October 1, 2007 – June 1, 2008.

## **Honors and Awards**

### **As a Student**

2016 ESRI Award for Best Scientific Paper in Geographic Information Systems. “Identifying Urban Watershed Boundaries and Area, Fairfax County, Virginia.” *PE&RS*, 81 (5), 365-372.

Outstanding Ph.D. Student. Virginia Tech, College of Natural Resources, Department of Geography. 2016.

Citizen Scholar Engagement Award. Virginia Tech. March 2014.

AmericaView Education Committee Service Award, February 2014.

A. B. Massey Award for Outstanding Ph.D. Student. Virginia Tech, College of Natural Resources, Department of Geography. 2013

Who’s Who among Students in American Universities and Colleges®. Nominated by Dr. Karen DePauw, Dean of the Virginia Tech Graduate School. 2012, 2013, 2014 & 2015

Geographic Society at Virginia Tech Outstanding Member. 2010 – 2011

2010 Robert L. and Esther E. Youngs Award for Excellence in Written Contribution to Natural Resources. Virginia Tech, College of Natural Resources and Environment. 2010

A. B. Massey Award for Outstanding Masters Student. Virginia Tech, College of Natural Resources, Department of Geography. 2010

Distinguished Academic Service Award -Nontraditional Studies Alumni Council Student Achievement Award. Virginia Commonwealth University. 2007.

Summa cum Laude. Virginia Commonwealth University, Richmond, VA. 2006.

Bachelor of Interdisciplinary Studies Outstanding Student. Virginia Commonwealth University, College of Humanities and Sciences. 2006.

Top One Percent of the Senior Class. Virginia Commonwealth University, College of Humanities and Sciences. 2006.

Distinguished Graduate Award in the Associate in Loss Control Management Program. American Society of Safety Engineers. 2000.

## **Professional History**

### ***Employment***

Scott Insurance, Lynchburg, Virginia. 2002 – 2014.

AIG Claims Services, Richmond, Virginia. 1993 – 2002.

Midkiff and Hiner (now Midkiff, Muncie & Ross), Richmond, Virginia. 1990 – 1993.

Sentry, A Mutual Insurance Company, Richmond, Virginia. 1988 – 1990.

Nationwide Insurance, Lynchburg, Virginia. 1983 – 1988.

The Bell System (AT&T, Chicago, IL & Illinois Bell Telephone Company, Champaign, IL). 1978 – 1982.

### ***Education***

Insurance Institute of America, Malvern, PA. 1987 – 2006.

### ***Professional Insurance Certifications***

- Associate in Insurance Services (AIS), 2006
- Associate in Claims (AIC), 2005
- Associate in Loss Control Management (ALCM), 2000
- Chartered Property Casualty Underwriter (CPCU), 1997
- Certificate in General Insurance, 1996

### ***Insurance Teaching Positions***

*Instructor - Insurance Institute of America, Malvern, PA and Richmond CPCU Society, Richmond Virginia*

- CPCU 510, Foundations of Risk Management, Insurance & Professionalism. Fall 2005 & 2006
- INS 22, Personal Insurance. Spring 2005
- AIC 36, Liability Claims Practices. Fall 2004 (Apprentice Instructor).

### **Academic Conferences**

*Poster Judge – Great Plains and Rocky Mountain Division of the American Association of Geographers 2021 Conference, Virtual Sessions. October 14, 2021.*

### ***Oral Presentations***

*The Impact of Location on Decentralized Water Use in Urban Agriculture. American Rainwater Catchment Systems Association Annual Conference. Virtual Presentation December 1, 2021.*

*I am a SAGE, Now What? Panel Presentation, American Association of Geographers Annual Meeting. Virtual Presentation April 8, 2021.*

*Rainwater Harvesting in Roanoke, Virginia, part of panel discussion titled - Developing Integrated Urban Resiliency: The Nexus between Water, Food, Energy and Public Health. Association for Environmental Studies and Sciences 2016 Annual Conference, Washington DC. June 9, 2016.*

*Evaluating Urban Agriculture's NDVI Signature. American Society for Photogrammetry and Remote Sensing 2016 Annual Conference, April 11 – 15, 2016 Fort Worth, Texas. Tammy E. Parece and James B. Campbell.*

*Virginia's K-12 Teachers and Students see their World from a New Perspective. National Council for Geographic Education. Washington, D.C. August 6 – 9, 2015. Tammy E. Parece, John McGee and James B. Campbell.*

*A Survey of U.S. Urban Gardeners and their Food Production. Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015. Tammy E. Parece and James B. Campbell.*

*Using Mobile and Fixed Stations to Observe Spatial and Temporal Variations In Roanoke Virginia's Urban Heat Island. Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015. Tammy Parece, James B. Campbell, Jie Li, and David F. Carroll.*

*Geography, Sustainability, and the Green Campus – Virginia Tech's First Year Experience Program. Association of American Geographers Annual Conference, Chicago, IL. April 20 – 25, 2015.*

*Geospatial resources to engage learners across educational spectrums. ESRI Education GIS Conference, San Diego, CA. July 12 – 13, 2014. Tammy E. Parece, John McGee and James Campbell.*

*Delineating Drainage Networks in Urban Areas.* American Society for Photogrammetry and Remote Sensing Annual Conference, Louisville, KY. March 23 – 27, 2014. Tammy Parece and James Campbell

*Assessing Variations in Urban Heat Island Effects within Roanoke, Virginia.* American Society for Photogrammetry and Remote Sensing Annual Conference, Louisville, KY. March 23 – 27, 2014. Tammy Parece, James Campbell, and Dave Carroll

*Helping Educators to Educate with Geospatial Technologies.* American Society for Photogrammetry and Remote Sensing Annual Conference, Baltimore, MD. March 24 – 28, 2013. Tammy Parece, James Campbell and John McGee.

*Behavior Change and Water Conservation at On-Campus Residential Halls.* 2011 Environment Virginia Symposium, Lexington, Virginia. April 6, 2011.

*Investigating the Relationship between Education and Natural Resource Consumption in University Residence Halls.* 26<sup>th</sup> Annual Graduate Student Assembly Research Symposium, Virginia Tech, Blacksburg, Virginia. March 24, 2010.

*Addressing Stormwater at the Residential Level: Citizen Education and Best Practices Implementation.* Co-author: Chris French, Alliance for the Chesapeake Bay. Virginia Lakes and Watershed Association Conference, Richmond, Virginia. March 7 – 9, 2010.

*Developing Methodology to Evaluate Urbanization's Effects on Watersheds.* 2009 American Water Resources Association Annual Conference, Seattle, Washington. November 9 – 12, 2009.

*Investigating the Relationship between Education and Water Conservation in University Residence Halls.* Tammy E. Parece & Tamim Younos. 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009.

*Stormwater Management and Water Conservation at Institutions of Higher Learning: Models for Urban Water Issues.* Tammy Parece, Tara McCloskey & Tamim Younos. 2009 Universities Council on Water Resources/The National Institutes for Water Resources Annual Conference, Chicago, Illinois. July 7 – 9, 2009.

*Service Learning Evolution: Progressing from Integration to Facilitation.* 61<sup>st</sup> Annual Meeting of the Southeastern Division of the Association of American Geographers (SEDAAG) in conjunction with the Mid-Atlantic Division of the Association of American Geographers (MADAAG). Morgantown, WV. November 19 – 21, 2006.

*Co-authored but presented by colleagues*

*No Cost Landsat Imagery Supports Student eBook Learning.* 2019. James Campbell, Tammy Parece. Precora 21/ISRSE 38. October 6 – 11, 2019, Baltimore Maryland.

*VirginiaView's Geospatial Workshops.* 2012. John A. McGee, Tammy Parece, & James B. Campbell. Presented by John A. McGee. AmericaView Fall Technical Meeting, 24-25 September, USGS EROS Data Center Sioux Fall, SD.

*An Analysis of the Upper Stroubles Creek Watershed Characteristics Using Geospatial Technologies.* Tiffany Sprague, Tammy E. Parece & Tamim Younos. Presented by Tiffany Sprague at 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009

*A Longitudinal Analysis of Urbanization Changes on Stroubles Creek: Historical Perspective.* Stephanie DiBetitto, Tammy E. Parece & Tamim Younos. Presented by Stephanie DiBetitto at the 2009 Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009.

*Conventional and decentralized water supply infrastructure: Energy consumption and carbon footprint.* Tamim Younos, Caitlin Grady, Teresa Chen & Tammy Parece. Presented by

Tamim Younos at American Water Resources Association Spring Specialty Conference, Anchorage Alaska. May 2009.

***Poster Presentations***

*Accuracy assessment of the National Land Cover Database Impervious Surface Dataset for Roanoke, Virginia.* Tammy E. Parece & James B. Campbell. 2014 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 4, 2014. 1<sup>st</sup> Place in Graduate Poster Competition.

*Identifying the Extent of Urban Impervious Surfaces using Landsat Imagery.* Tammy E. Parece & Dr. James B. Campbell. 2013 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 19, 2013.

*Virginia's K-12 Students see their World from a New Perspective.* Tammy E. Parece. Virginia Tech Engagement Showcase, Virginia Tech, Blacksburg, VA. April 17, 2013. 1<sup>st</sup> Place in Graduate Poster Competition.

*Delineating drainage networks in urban areas.* Tammy E. Parece & Conrad D. Heatwole. 2012 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. (April 13, 2012); 1<sup>st</sup> place in Poster Competition. Also presented at 28<sup>th</sup> Annual Virginia Tech GSA Research Symposium, Virginia Tech, Blacksburg, VA. (March 28, 2012); 2<sup>nd</sup> place in Poster Competition.

*Urbanization and stormwater management problems in the Upper Stroubles Creek Watershed.* Tammy E. Parece & Tamim Younos. 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

*\*Educating homeowners on stormwater management: Implementing a home watershed protection audit program.* Tammy E. Parece, Suzette Lyon, William Shanabruch, Chris French, & Anna Mathis. Presented by Tammy E. Parece and William Shanabruch, 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

*An Analysis of Poverty in the Los Angeles PMSA using GIS and 2000 U.S. Census Data.* Tammy E. Parece. 2010 GIS and Remote Sensing Research Symposium, Blacksburg, Virginia. April 9, 2010.

*Promoting Resource Conservation Habits by Changing Attitudes, Values and Beliefs in College Students Living in University Residence Halls.* Tammy E. Parece. 2009 Behavior, Energy and Climate Change (BECC) Conference, Washington, D.C. November 15 – 18, 2009.

*Reedy Creek: A Prime Example of Urbanization's Detrimental Effects on Streams and Watersheds.* Tammy E. Parece. Virginia Water Resources Conference: Water Resources in Changing Climates, Richmond, Virginia. October 15 – 16, 2009

*Co-authored but presented by colleagues*

McGee, John, J. B. Campbell, and T. E. Parece. 2014. *VirginiaView: Advancing the Geospatial Pipeline.* Poster presentation, AmericaView Fall Technical Meeting. Davis, CA. October 26-28.

*\*Implementing an in-stream stormwater monitoring program to measure BMP effectiveness.* Chris French, William Shanabruch, Anna Mathis, & Tammy Parece. Presented by William Shanabruch, 2010 Virginia Stormwater Symposium, Richmond, Virginia. October 21, 2010.

*\*Posters re-presented by request at the Virginia Water Monitoring Council 2010 Conference – Enhance Your MS4 Program: Outreach and Monitoring Strategies for Local Governments, December 8, 2010.*

**Service Activities**

**Colorado Mesa University:**

***GIS/GPS Consulting:***

- 2021 – 2022 – Justin Gollob, Professor of Political Science. Project: Mapping CMU Research Activities on the Western Slope of Colorado
- 2019 – ongoing. Dr. Shiang-Lih Chen McCain, Assistant Professor of Business. Various projects.
- 2017 – 2021. Dr. Melissa Connor, Professor of Forensic Anthropology and Director of the Forensic Research Station, Department of Social and Behavioral Sciences, Colorado Mesa University. Project: United States Human Decomposition Research Facilities
- 2017 – ongoing. Dr. Carlos Baldos, Assistant Professor of Management, Business Department, Colorado Mesa University. Project: Western United States Executive Services.
- 2017 – 2021. Dr. John Seebach, Assistant Professor of Archeology, Department of Social and Behavioral Sciences, Colorado Mesa University. Instruction Manual – GNSS Receiver and Terraflex Software.
- 2016 – 2017. Dr. Tim Casey, Professor of Political Science, Department of Social and Behavioral Sciences, Colorado Mesa University. Project: Recreation Experience, United States Bureau of Land Management.
- 2016 – 2017. Dr. Nathan Perry, Associate Professor of Economic, Department of Business, Colorado Mesa University. Project: Hedonic Price Study – Grand Junction, Colorado.

***Other Service Activities***

- Faculty Advisor – The Ohio State University. Undergraduate Geography Club.
- Faculty Advisor – Colorado Mesa University Chapter of The National Society of Leadership and Success Honor Society, 2021 – 2022.
- Applied Anthropology and Geography Program - Colorado Mesa University Assessment Coordinator, 2020 – present
- Colorado Mesa University T2T Committee, Fall 2019 – 2022
- Colorado Mesa University SBS Scholarship Committee, 2019 – 2022
- Colorado Mesa University Faculty Senate Ad Hoc Committee, Spring 2020 – Committee to review applications and choose the Distinguished Faculty Member for 2020.
- Colorado Mesas University Faculty Senate Ad Hoc Committee, Fall 2019 – Maternity Leave, Educational Benefits, Personal days.
- Colorado Mesa University Faculty Advisor – American Association of University Women, 2018 – 2021.
- Colorado Mesa University Panelist – Spatial Literacy Panel. February 22, 2018. Tomlinson Library.
- Colorado Mesa University New BA Program Committee. Applied Anthropology and Geography. 2017 – 2018.
- Colorado Mesa University GIST Curriculum Committee Member. 2016 - 2022

***Other Service Activities – K-12 Outreach:***

- Girls in STEM Conference*, March 2, 2019 – West Middle School, Grand Junction. Mentor.
- Colorado Association of Science Teachers (CAST)*, 2018 – 2021. Region III, University Representative.
- Giant Map of Colorado*. 2017 – 2022. Developed the National Geographic Society Giant Map of Colorado program at Colorado Mesa University.
- GEO-PRO* (Colorado Mesa University’s K-12 Geography Education and Outreach Program). 2018 – 2022. Manager <http://libguides.coloradomesa.edu/geo-pro>

*Girls in STEM Conference*, April 14, 2018 – West Middle School, Grand Junction. Mentor and Judge.

*Introduction to GIS Workshop*. January 11, 2018. Montrose County Colorado School District RE-1J.

*GIS/UAS Consultant*. 2017 – 2022. Doug Eccher, Science Coordinator, Peak Academy, Montrose Country Colorado School District RE-1J.

### ***Mentoring***

Undergraduate Research Projects. Spring 2015. Department of Geography, Virginia Tech. Students - RJ McNally, Lynn Wormeli, and Malaysia Lumpkin.

Graduate/Undergraduate Mentoring Program, Virginia Tech. Spring 2013 & 2014.

National Science Foundation – Research Experience for Undergraduates (NSF REU) – Virginia Tech. Mentor to Tiffany Sprague from James Madison University and Stephanie DiBettino from University of Vermont. Research projects - longitudinal analyses of the Upper Stroubles Creek Watershed in Blacksburg, Virginia. Research Advisor – Dr. Tamim Younos. Summer 2009

### ***Manuscript/Book Reviewer***

*Landscape Ecology*, 2020 – Present

*Sensors*, 2020 – present

*Springer Publications*. 2019 - 2021. Book - Greening Cities through Gardening: A Political Ecology Analysis of Urban Agriculture in the Americas

*Remote Sensing*, 2016 - present

*International Journal of Sustainability in Higher Education*, 2015 - present

*Journal of Environmental Studies and Sciences*, 2014 – present

*The Geography Teacher*, 2018 – present

*International Journal of Remote Sensing*, 2018 - present

*The Southeastern Geographer*, 2017

*Oxford University Press*. Book – Human Geography, 2<sup>nd</sup> Edition by John Rennie Short, 2017

*Journal of Hydrology*, 2016

*Journal of Applied Meteorology and Climatology*, 2015

On-line journal – *Sustainability*, 2015

*IEEE Transactions on Geoscience and Remote Sensing*, 2013 – 2014

### ***Officer Positions***

Vice President - Membership, Iota Delta Rho - the Interdisciplinary Research Honor Society – 2011- 2014

Student Representative - SouthEastern Division of the Association of American Geographers, 2013 – 2014.

Treasurer – Alpha Epsilon Lambda, Virginia Tech Graduate Academic Excellence and Leadership Honor Society, 2012 – 2013, 2014 - 2015

Graduate President – Geographic Society of Virginia Tech, 2009 -2010, 2011 – 2013

Graduate President – Virginia Tech Chapter of the American Water Resources Association, 2009/2010

### ***Other***

Judge for Graduate Poster Competition - 2016 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 8, 2016.

Poster and Oral Presentation Abstract Reviewer: Interdisciplinary Research Awards for the Graduate Student Assembly Research Symposium, March 24, 2016.

Judge for Web Mapping Presentations and Moderator for two different paper sessions. October 20, 2015. 26<sup>th</sup> Annual Virginia GIS Conference, Charlottesville Virginia.

Judge for Undergraduate Poster Competition - 2013 GIS and Remote Sensing Research Symposium, Virginia Tech, Blacksburg, VA. April 19, 2013.

Grant Application Reviewer. Spring 2011 & 2013 and Fall 2011 & 2014 Graduate Research Development Program

Abstract Reviewer: Graduate Student Assembly Research Symposium, March 23, 2011.

Interdisciplinary Research Symposium, November 4, 2011 & IDR Day Research Symposium February 26, 2015.

### **Invited Speaking Engagements**

Virginia Commonwealth University, College of Humanities and Sciences' Bachelors of Interdisciplinary Studies Commencement Address. *The Meaning of Interdisciplinary Studies*. December 11, 2010

Campus-Community Partnership Breakfast. Reynolds Community College, University of Richmond, Virginia Union University and Virginia Commonwealth University. Held at University of Richmond, Richmond, Virginia.

### **Outreach and Engagement**

Virginia Geographic Alliance K-12 Teacher Workshop. April 30, 2016, Virginia Tech, Blacksburg, VA. Remote sensing and weather educational resources related to the Children's Museum exhibit noted below.

Blacksburg Children's Museum. 2015 – 2016. VirginiaView remote sensing children's activity to include: (1) a 10 x 15 ft. Landsat 8 wall mural of the New River Valley region, (2) a 10 x 10 ft. Landsat 8 carpet map of the Chesapeake Bay and New River Watersheds, (3) light tables with aerial imagery, and (4) an outdoor weather station with indoor software and internet connectivity.

<http://www.vtnews.vt.edu/articles/2016/02/022516-cnre-geospatialexhibit.html>

Roanoke Virginia City Public Schools. 2013 – 2016. In 2013, 11 weather stations were installed in individual schools, to support my dissertation research, funded by my scholarship and grant resources. Once installed, software and connectivity to the internet was completed with the assistance of Virginia Tech Meteorology students, and maintenance of the software and connectivity has continued to date. Two manuals for teacher use of 1) weather station software and 2) WeatherUnderground website have been completed. Highlighted in Virginia Tech News at: <http://www.vtnews.vt.edu/articles/2014/02/021014-cnre-weatherstations.html>.

Grayson County Extension Program – Career Immersion Day for Grayson County High School Students. July 18, 2015. Geospatial – GIS and Remote Sensing Activities.

Virginia Science Festival, Virginia Tech, Blacksburg, VA. September 26, 2015 & October 4, 2014. Remote Sensing and GIS hand-on activities.

Kids Tech University. Annual program for middle school students at Virginia Tech, Blacksburg, VA

- February 27, 2016, February 22, 2014, January 26, 2013, & February 25, 2012. *Looking Down is Looking Up: Why do we work with aerial photography?* GIS and Remote Sensing hands on activities.
- March 23, 2013. *Mapping Home: The Importance of Place and Space*. Used a Geography Bee type activity to introduce cultural definitions of place, space, and the natural environment.
- February 23, 2013. *Our Changing Planet*. Introduced students and parents to on-line geospatial tools and their use in evaluating anthropogenic and natural changes over time.

- March 24, 2012. *Tracking the geographical spread of disease: how and why diseases seem more prevalent in today's globalized world.*
- March 28, 2009. Conducted watershed and wetland demonstration using Enviroscope® Model.
- February 28, 2009. Team leader for 10 middle school students.

Reedy Creek Coalition: clean-up activities, environmental education, home watershed audit program, GIS analysis of the watershed, preparing maps for use by the Coalition, assisting in grant proposals, monthly meetings, and manning booths at different events throughout the city. 2005 – 2016.

Friends of Forest Hill Park: clean-up activities and environmental education. 2009 – 2013.

Virginia Waterways Cleanup. Site supervisor 2007, 2008, 2010, 2011

Stroubles Creek Stream Restoration Project. 2009

Master Naturalist Educator – Water quality and macroinvertebrate indicators. 2009

Virginia Save our Streams Chapter of the Isaak Walton League Regional Trainer – Eastern Muddy Bottom Method and Water Quality Monitor. 2007 – 2010.

City of Richmond, 9<sup>th</sup> Council District Community Clean-up Projects. Attended organizational meetings, assisted with community clean ups, supervised clean-up activities at the Beaufort Hills Wetlands, provide resources for clean-up activities and assisted in engaging the Commonwealth of Virginia Department of Environmental Quality in addressing an illegal dump within the District. 2007 – 2009

Seven Hills Middle School: Led a team of university and middle school students on watershed education, clean-up activities and water quality testing on Reedy Creek, Richmond, Virginia. 2007 - 2008

World Water Monitoring Day – water testing for streams in the City of Richmond. 2007 – 2008.

Miles J. Jones Elementary School and After School Program, Richmond, Virginia: environmental education activities including an environmental festival covering water, watersheds and wetlands. 2007 – 2008.

### **Honor Society Memberships**

Sigma Xi, The Scientific Research Society, 2012

Iota Delta Rho, Interdisciplinary Research Honor Society, Founding Member, 2011

Gamma Sigma Delta, Honor Society of Agriculture, 2010

Alpha Epsilon Lambda, Academic Excellence and Leadership Honor Society, Alpha Xi Chapter at Virginia Polytechnic Institute and State University, 2010

Phi Kappa Phi, The Honor Society, Virginia Commonwealth University Chapter #193, 2007

Gamma Theta Upsilon, The International Geographical Honor Society, 2002

### **Professional Affiliations**

Colorado Geographic Alliance, 2016

American Society for Photogrammetry and Remote Sensing, 2012

Association of American Geographers, 2008

National Geographic Education Network, 2007

National Council for Geographic Education, 2007

Virginia Geographic Alliance, 2007

Southeastern Division of the Association of American Geographers, 2006

American Association of University Women, 2006

### **Professional Development**

- 2019 CMU Faculty Development Workshop on Ethics, January 18, 2019
- 2019 CMU Faculty Development Workshops on Academic Advising and Information Literacy, August 16, 2019
- 2016 Incorporating Weather and Climate into GIS Curricula. NCAR Workshop. July 6 – 9, 2016, Boulder Colorado.
- 2016 Early Career Conference, May 15-18, 2016. Lafayette, Louisiana. Grosvenor Center for Geographic Education and National Center for Research in Geography Education.
- Geoprogessions Workshop. October 2015, Washington D.C. Association of American Geographers.
- Virginia Tech Faculty Development Institute. MATLAB Programming Techniques. 2013
- Conflict of Interest Training. Virginia Tech Office of Research. August 10, 2012.
- Virginia Tech Faculty Development Institute.
- Integrating Service-Learning into NSF Broader Impact Requirements, March 31, 2012
  - Designing and Assessing Community-Engaged Learning, March 3, 2012
  - Service-learning as an Engaged Learning Pedagogy Workshop, February 12, 2012
- Virginia Citizens for Water Quality Summit, University of Virginia, Charlottesville, VA, 2008 & 2009.
- Preparing Future Faculty Seminar in College Teaching, Preparing Future Faculty & Preparing Future Faculty Seminar – Active Learning. – The Academic Profession. Virginia Commonwealth University, 2007.
- Clean Virginia Waterways Train the Trainer Rain Barrel Workshop. Longwood University and the Piedmont Soil and Water District. Farmville, Virginia. 2007.
- Wetland Education Workshop (WETMAAP). Virginia Geographic Alliance, U.S. Geological Survey's National Wetlands Research Center and Chadron State College. Richmond, Virginia. 2007.
- Virginia Save Our Streams Chapter of the Isaak Walton League Water Quality Monitor Training. 2007.
- CITI Course in The Protection of Human Research Subjects. 2007.
- Project Wet Educators Workshop. 2007.
- Project Learning Tree and Virginia's State Parks Your Backyard Classrooms – Chesapeake Edition Educators Workshop. 2007.
- Shenandoah Valley Environmental Educator Training Workshop, including Virginia's State Parks Your Backyard Classrooms – Mountain Edition. 2007.
- National Sciences Foundation Workshop on Grants. Virginia Commonwealth University Office of Research Services. 2007.